

ABSTRACT

The invention relates to coated optical fibers comprising soft primary coatings and to such primary coatings for protecting glass optical fibers having a sufficient high resistance against cavitation. In particular, the primary coatings have a cavitation strength at which a tenth cavitation appears (σ_{cav}^{10}) of at least about 1.0 MPa as measured at a deformation rate of $0.20\% \text{ min}^{-1}$ and of at least about 1.4 times their storage modulus at 23°C . The coating preferably shows strain hardening in a relative Mooney plot, preferably has a strain energy release rate G of about 20 J/m^2 or more, and preferably has a low volumetric thermal expansion coefficient. The invention furthermore provides a method and apparatus for measuring the cavitation strength of a primary coating.